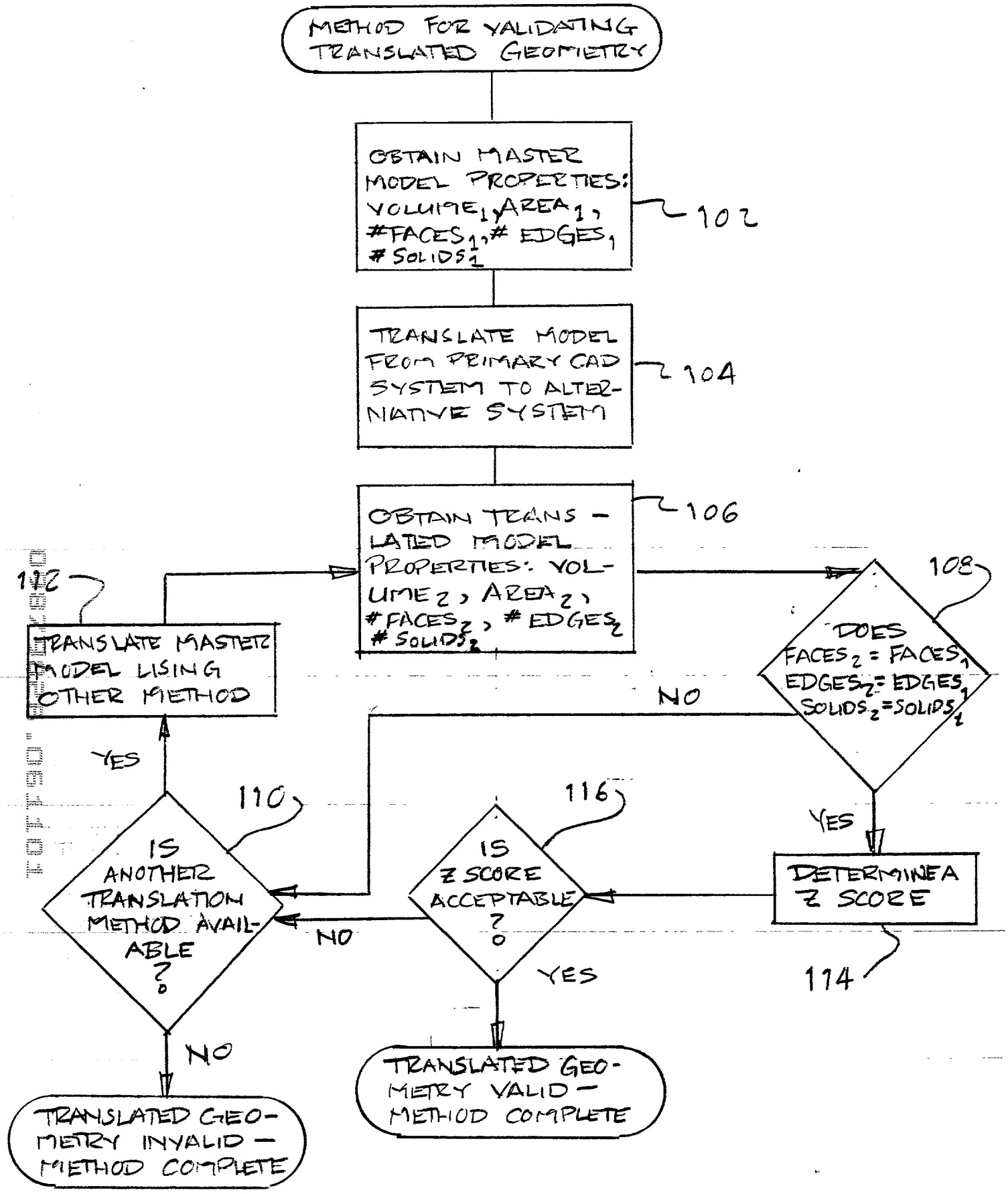
METHOD FOR VALIDATING TRANSLATED GEOMETRY
OBTAIN MASTER MODEL PROPERTIES: VOLUME1, AREA1, #FACES1, # EDGES1, # SOLIDS1
102
TRANSLATE MODEL FROM PRIMARY CAD SYSTEM TO ALTERNATIVE SYSTEM
104
OBTAIN TRANSLATED MODEL PROPERTIES: VOLUME2, AREA2, #FACES2, # EDGES2 # SOLIDS2
106
DOES FACES2 = FACES1 EDGES2 = EDGES1 SOLIDS2 = SOLIDS1
108
NO
YES
TRANSLATE MASTER MODEL USING OTHER METHOD
112
IS ANOTHER TRANSLATION METHOD AVAILABLE ?
110
NO
IS Z SCORE ACCEPTABLE ?
116
YES
DETERMINE A Z SCORE
114
YES
NO
TRANSLATED GEOMETRY INVALID — METHOD COMPLETE
TRANSLATED GEOMETRY VALID — METHOD COMPLETE

FIGURE 1

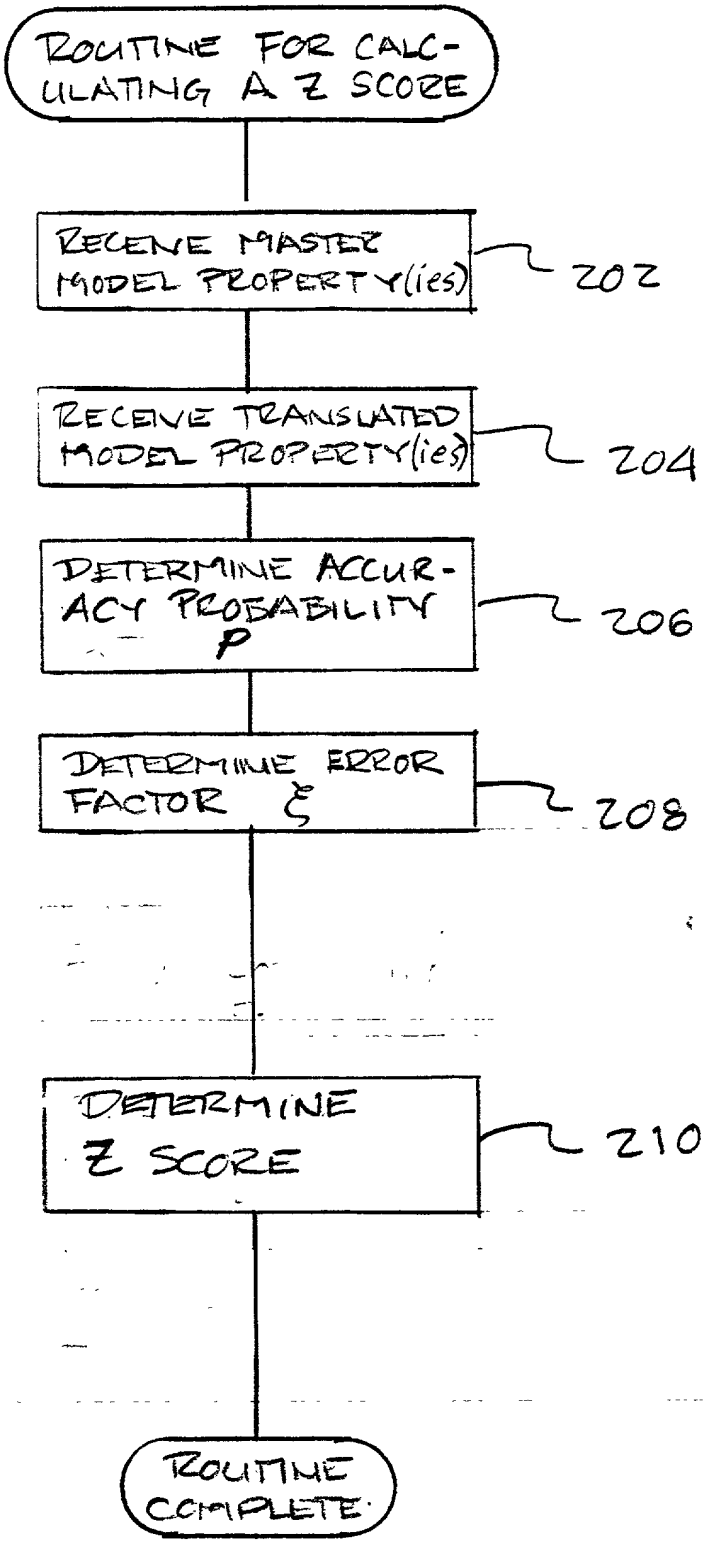
ROUTINE FOR CALCULATING A Z SCORE
RECEIVE MASTER MODEL PROPERTY(ies)
202
RECEIVE TRANSLATED MODEL PROPERTY(ies)
204
DETERMINE ACCURACY PROBABILITY p
206
DETERMINE ERROR FACTOR ξ
208
DETERMINE Z SCORE
210
ROUTINE COMPLETE

FIGURE 2

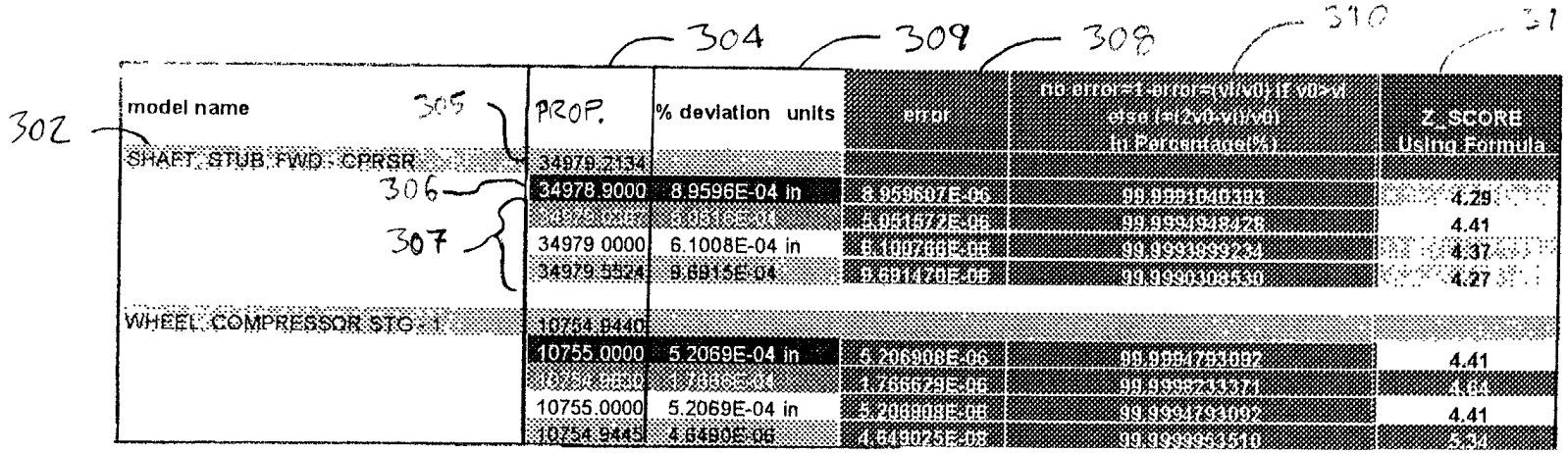
304
309
308
310
312
302
305
306
307
model name
PROP.
% deviation units
error
no error=1 error=(v/1.0)1E v0>v
else (e12)v0>v(v/v0)
in Percentage(%)
Z_SCORE
Using Formula
SHAFT_STUB_FWD_CPRSR
34979.2134
34978.9000
8.9596E-04 in
8.959607E-06
99.9991040393
4.29
4.051472E-06
99.9995948528
4.41
34979.0000
6.1008E-04 in
6.100788E-06
99.9993899212
4.37
34979.5524
9.6815E-04
9.681470E-06
99.9990318530
4.27
WHEEL_COMPRESSOR STG-1
10754.8440
10755.0000
5.2069E-04 in
5.206908E-06
99.9994793092
4.41
4.786629E-06
99.9995213371
4.41
10755.0000
5.2069E-04 in
5.206908E-06
99.9994793092
4.41
10754.9445
4.6450E-06
4.645025E-08
99.9999953550
3.34

FIGURE 3

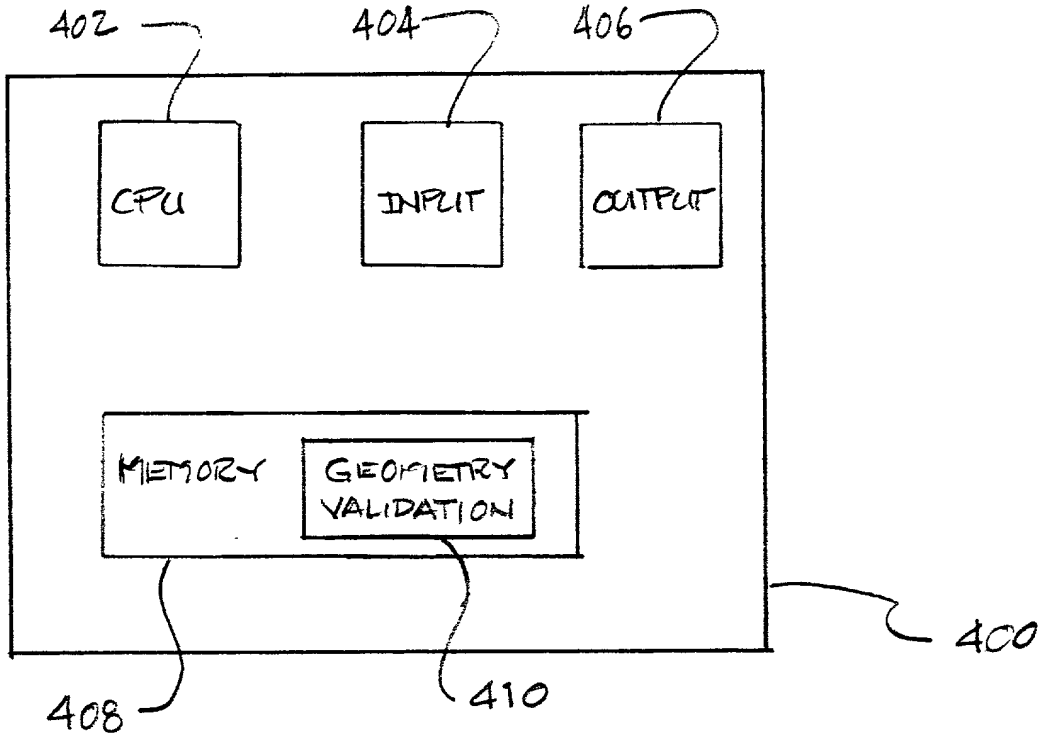

FIGURE 4

Docket No. 10014108-1